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"It Makes You Feel a Little Bit More Heard": Tracking Apps as Tools of Resistance in Medical Encounters?

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Abstract
Menstruators experience testimonial injustice in medical encounters when their reports of painful and distressing menstrual embodiments are minimised, rebuffed and invalidated. Though not all or only women menstruate, such dismissals reflect long-standing misogynistic views of menstruators as irrational, hysterical or hypochondriacal. In this article, I relay the accounts of study participants in Aotearoa who reported frustrating experiences of minimisation or dismissal in medical encounters. I explore how participants resisted experiences of testimonial injustice, including through the use of menstrual tracking apps. I argue that participants reassert their epistemic authority as knowers of their own bodies through such acts of resistance. I interrogate the limitations of apps as tools of resistance, highlighting apps' commercial imperatives, and showing how they reproduce the same forms of epistemic injustice that menstruators use them to resist. Ultimately, I argue that apps will not fundamentally change a health system that too often fails to take menstruators' concerns seriously.

Keywords: testimonial injustice; epistemic resistance; menstrual tracking apps; menstrual disorders; critical health

Introduction

> The response to pain, as a call for action, also requires anger; an interpretation that this pain is wrong, that it is an outrage, and that something must be done about it. (Ahmed, 2014, p. 175)

What is pain without a willing witness? When a sufferer's testimony is doubted or dismissed, what can they do with their pain, trapped stagnant in their body, unrecognised and unresolved by the apparatuses of medicine? As part of my study of digital menstrual tracking practices in Aotearoa, participants talked about frustrating experiences when their reports of menstrual complaints like excessive pain and excessive bleeding were minimised, ignored or dismissed. For some participants, painful and distressing menstrual embodiments remained unresolved for many years, during which their repeated acts of testimony were met with ongoing dismissal. In this article, I recount these stories, and explore some of the strategies participants employed to resist the injustice of dismissal. I examine the ways in which participants leveraged menstrual tracking apps (MTAs) in these efforts. I close by interrogating the limitations of apps as tools of resistance. I argue that while MTAs are individually useful in resisting medical dismissal by bolstering the user's testimony, they do so by asserting their authority over the user's own. Menstruators are creative and resourceful when resisting repeated acts of dismissal but ultimately much more must be done to remedy a misogynistic health system that fails to hear, recognise and acknowledge their concerns.

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Background

Testimonial injustice and gendered dismissal in medical encounters

Experiences of medical dismissal and invalidation were sometimes referred to by participants in my research as "gaslighting". Such experiences can also be situated as examples of what Fricker (2007) calls "epistemic injustice": wrongs "done to someone … in their capacity as a knower" (p. 1). More specifically, these experiences of dismissal can be understood as instances of what Fricker calls "*testimonial injustice*" (p. 1), which occurs when the speaker's credibility is diminished by the hearer. In medical encounters, there is often an asymmetry in the relative epistemic privilege of doctor and patient, where a patient's testimony of their experiences is afforded less importance and authority than the doctor's expert knowledge (Jayadeva & Lupton, 2025). Under Fricker's framework, when a menstruator's testimony of their feelings, sensations, experiences and embodiments is rebuffed by the agencies of medicine, they are epistemically wronged in their capacity as a knower of their own body.

People presenting with pain and other embodiments that are invisible or difficult to attribute to a definite cause are often treated with scepticism or suspicion in medical settings. Contested illnesses, "health conditions where aetiology is difficult to identify, complex, understudied or poorly understood" (Jayadeva & Lupton, 2025, p. 2), are particularly prone to such treatment. In the absence of a readily assignable aetiology or straightforward diagnostic criteria, doctors may doubt patients' reports, and minimise or dismiss symptoms. Where disorders do not leave visible marks on bodies, or are otherwise difficult to detect, doctors may attribute their effects on sufferers to be imagined or at least partly psychological. Patsavas (2014) writes of her experience of chronic pain: "Doctors would often express their mystification and frustration by telling me that there was nothing wrong with me" (p. 208). The menstrual disorders polyendocrine metabolic ovarian syndrome (PMOS) and endometriosis are examples of chronic illnesses that are often invisible,[1] and may be contested. PMOS lacks a uniform standard for diagnosis and may require internal imaging to be confirmed (Lawrenson et al., 2014; Varanasi et al., 2018). Endometriosis does not have external markers, and requires patient testimony of symptoms and their intensity, internal imaging, and/or surgical confirmation for diagnosis (Ellis et al., 2022). Whelan (2007) notes that "as with many chronic illnesses, the suffering caused by endometriosis is invisible and subject to social discreditation" (p. 960).

Women have long been regarded as prone to sensitivity, hysteria and exaggeration (Jules, 2023), "defined culturally as the bearers of emotion and so … more 'subjective', biased and irrational" (Jaggar, 1989, p. 165). This is especially the case when women "speak out against established 'truths'" (Ahmed, 2014, p. 170); for example, by complaining about poorly understood pain. When women express strong emotion they are often judged to be "failing the very standards of reason and impartiality that are assumed to form the basis of 'good judgement'" (Ahmed, 2014, p. 170), where reason and emotion are imagined to be mutually exclusive and binary opposites. Tseris (2019) identifies some of the affectivities required of women seeking healthcare:[2] grateful, accepting, optimistic, oriented towards recovery. Negative emotions or 'excessive' emotionality can render women's testimony suspect. Attitudes and beliefs about women's emotionality and irrationality are reflected in medicine's long entrenched misogynistic treatment of women patients. Women's pain is routinely underinvestigated and undermedicated, and conditions suffered by women are often less well studied and understood, and more often missed or misdiagnosed (Cleghorn, 2022). Menstrual conditions are particularly entangled with gendered understandings. Though not all or only women menstruate, menstruation is "coded feminine": "both highly gendered and not attached as a

[1] Until recently, PMOS was called polycystic ovarian syndrome (PCOS).
[2] Tseris writes specifically about women's experiences of mental health care and treatment, but this could equally be applied to menstrual health, or women's experiences of healthcare more generally.

material reality to only one gender" (Przybylo & Fahs, 2018, p. 209). Thus, menstrual embodiments are particularly prone to misogynistic dismissal, reported by "nervous, irrational women who exaggerate their symptoms" (Whelan, 2007, p. 958).

Menstrual pain is also subject to the expectation that it is a normal part of menstruation. Przybylo and Fahs (2018) argue that, despite, or perhaps *because* of its 'normalcy' and commonness, there is a failure "to lend legitimacy to menstrual pain as real pain" (p. 207). Compounding this, normative menstrual embodiment requires that menstruators work to conceal all traces of their menstruation—not just visible blood, but also markers or expressions of 'too much' pain or irritation (Persdotter, 2020; Przybylo & Fahs, 2018; Wood, 2020). But menstrual pain, and emotional reactions to that pain, work to reveal menstruation (Andreasen, 2022). This places menstruators in a tricky position when seeking medical attention for menstrual difficulties, which requires that they resist "cultural injunctions to remain quiet or reserved" (Cvetkovich, 2003, p. 188) by telling what should normally be unspoken, making the invisible visible, and revealing what should be hidden. In Andreasen's (2022) words: "To act on pain, to make oneself comfortable, or to receive care from others, demands that bodies of pain or anger are revealed as menstruating" (p. 128). Given all these factors together, menstrual embodiments can be difficult to communicate in medical settings, and are especially vulnerable to misogynistic dismissal as exaggerated, hysterical or hypochondriacal.

Epistemic resistance

In response to the injustice of medical dismissal, people may engage in knowledge-making practices in acts of resistance. Whelan (2007) uses the term "epistemic resistance" (p. 958) to describe how endometriosis patient communities co-construct knowledge to challenge medical invalidation and bolster their own epistemic authority. In Whelan's study, knowledge-making practices occurred in both in-person support groups and digitally, over email lists of geographically distributed endometriosis sufferers. Support group members shared information, educational resources, experiences of treatments, coping strategies, and approaches for finding healthcare. They gathered and compared symptoms, thereby producing experiential knowledge to rearticulate what counts as evidence of illness and validating new ways of knowing in networks of epistemic authority. These practices of knowledge building allowed members to assert their own epistemological expertise and experiential knowledge. In this way, group members granted themselves "a special epistemological status that those without the disease (including doctors, their primary competitors for credibility and those most likely to discredit them) do not have" (Whelan, 2007, p. 976). Alongside these knowledge-making practices, support groups in Whelan's study provided their members emotional support. This included the opportunity to air complaints of medical invalidation, and to have these heard and corroborated by supportive and understanding peers. Ahmed (2014) argues that acts of witnessing each other's experiences of pain are political acts that form the basis of feminist attachments. Collective narratives of menstrual pain and medical gaslighting can serve as a demonstration of collectivity, solidarity and a feminist ethic of care (Keller & Kittay, 2017). These acts of support, care and knowledge-making helped group members in Whelan's study to repair some of the damage done in their experiences of medical invalidation.

Maslen and Lupton (2020) investigate how women with chronic health conditions use online resources, including apps. They report women use these "to find and share information and support, monitor their bodies and health states and self-manage their conditions" (p. 1640). In contrast with Whelan's (2007) study, rather than being a wholly self-directed endeavour, Maslen and Lupton's participants also felt pressure from health practitioners to "aspire to the ideal of the 'digitally engaged patient'" (p. 1641) by continually educating themselves on their disorders. In some cases, self-education became a balancing act, where the self-educated patient trod a fine line between achieving educational 'empowerment' and

seeming suspiciously 'over-informed' in the eyes of their doctors. More recently, Jayadeva and Lupton (2025) investigated digital self-tracking within digital Long COVID patient communities. They argue that self-tracking can work as a mechanism through which Long COVID sufferers can reassert their epistemic authority in the face of medically based epistemic injustice. Jayadeva and Lupton note the importance of community in these efforts. Online patient groups allowed the participants in Jayadeva and Lupton's study to "make sense of their symptoms" and provided "insight into possible medications, non-pharmaceutical therapies and behavioural modifications that could be used to manage different symptoms and problems" (p. 9). They enabled mutual support and encouraged self-advocacy in medical encounters. Within these communities, self-tracking (for example, via wearable fitness tracking devices) became a collective activity producing a common resource of pooled self-tracked data. Data sharing enabled the identification of patterns between symptoms and their possible causes and treatments, which participants "felt they would have been unlikely to notice otherwise" (p. 11). In this way, self-tracking was part of communal practices of digital knowledge-making and care, arming patients with tools to resist medically based testimonial injustice.

Menstrual tracking apps: tools of resistance and empowerment?

Menstrual tracking apps are digital applications used to track menstrual cycles. Since the first such app launched in 2013 (Worsfold et al., 2021), hundreds of MTAs have proliferated, with collectively hundreds of millions of users worldwide (Rampazzo et al., 2024). Flo (https://flo.health) and Clue (https://helloclue.com) make up the majority of MTA downloads worldwide (Rampazzo et al., 2024), and their design and function is typical of MTAs. In these apps, users log the dates of their menstrual periods, and in return, receive predictions for the dates of upcoming menstrual periods, ovulation and a 'fertile window'. Clue and Flo, like many other apps, offer menstrual cycle information in in-app articles, including about menstrual cycle disorders. App users are encouraged to log and track a vast range of embodiments in addition to their menstrual periods, including, for example, pain, subjective bleeding volume, sexual activity, mood, digestive symptoms, medications, physical activity and energy (for example, see Clue, n.d.; Flo, n.d.). Logged embodiments are tracked and charted in apps in a variety of formats such as calendars, visualisations and time series charts.

MTAs often promote themselves as tools of empowerment—both individual and collective. Authors such as Healy (2021) and Polzer et al. (2022) argue that MTA marketing promises app users bodily knowledge, control, freedom and agency. This includes knowledge about, and control of, menstrual disorders. In addition to in-app information about menstrual disorders, users are encouraged to share their logged data with doctors (Pichon et al., 2022) in order to assist in menstrual disorder diagnosis and treatment (for example, see Bell & McGee, 2024). Kressbach (2021) argues that app charts and visualisations can lend users' testimony credibility via the "visual rhetoric" of science and big data (p. 243). She proposes that medical professionals are more likely to accept these forms of information as legitimate evidence of disorder, in contrast with patients' subjective reports. MTA marketing also promises a form of collective empowerment, in which individually logged data is aggregated by MTAs and shared with health researchers in order to improve scientific knowledge about menstrual disorders. Clue, for example, promises on its website to utilise user data to "answer questions to better understand menstrual and reproductive health, contributing to improved healthcare and ultimately, better female health" (Shea, 2024, para. 1).

Many authors are critical of the 'empowerment' offered by MTAs. Polzer et al. (2022), for example, argue that MTA marketing positions menstruators' bodies as enigmatic and in need of deciphering, and the data created by apps as more accurate than other ways of knowing about the body. Authors such as Riley et al. (2025) and Sanders (2017) situate the empowerment offered by MTAs and other self-tracking apps within a post-feminist neoliberal context in which the responsibility for achieving and maintaining good

health is individualised and atomised. Others (for example, Pichon et al., 2022; Tylstedt et al., 2023; Westwood, 2023) argue that MTA users are offered information that is contingent on continued use of the apps, rather than real opportunities for learning and empowerment per se. With regards to promises of collective empowerment, Roberts et al. (2019) maintain that collections of data about "individual bodily experiences" (p. 65) are fundamentally disconnected from collective feminist political action. Commercial aggregations of data do not, they say, entail the participation or collaborative meaning-making essential to collective practices of resistance that can bring about lasting change. Some authors situate MTA claims of empowerment within the context of "surveillance capitalism"—Zuboff's (2019) term for the economic model built on the mass harvesting of user data for profit. Healy (2021) argues that rather than support empowerment, MTAs turn menstruators' bodies into sites from which to mine lucrative data. Pichon et al. (2022) note that MTAs encourage users to input ever more data with claims that this will improve the insights that users receive. They argue that there is little evidence to support this claim, but note that there is a clear financial incentive for apps to encourage continued and detailed logging and tracking.

In contrast, MTA users are often optimistic about the potential for MTAs as tools of empowerment and self-discovery. In studies, app users describe using MTAs to learn about their cycles, to get to know their bodies better, and to aid in their communication with doctors (Broad et al., 2022; Epstein et al., 2017; Hohmann-Marriott et al., 2023; Levy & Romo-Avilés, 2019). MTA users are often enthusiastic about the use of their data in health research (Hohmann-Marriott, 2021). While some users are concerned about the widespread collection and use of their data in commercial operations, many are unconcerned about this, or judge it to be a reasonable trade-off for the utility of these apps (Broad et al., 2022; Friedlander et al., 2025; Hohmann-Marriott, 2021). Authors such as Della Bianca (2021) and Algera (2023, 2025) problematise what they characterise as totalising views of MTAs as uncomplicated tools of oppression to which their users are subject. Della Bianca, for example, highlights the "ambivalence and fluidity of users' engagements with [these] technologies" (p. 3).

In this article, I explore the creative and resourceful ways in which participants in my research used MTAs, among other resources and strategies, to enact epistemic resistance against their experiences of testimonial injustice and medical invalidation. I relay the frustrations that some participants experienced when they felt that their app was taken more seriously than their attestations of their own embodiments, arguing that MTAs thus reproduce the testimonial injustice participants experienced in medical encounters. I argue that MTAs—despite marketing claims to the contrary—are ill equipped to solve the problems of deeply entrenched misogyny in a medical system that fails to take menstruators' knowledge of their own bodies seriously. This article adds to a body of literature that investigates menstruators' experiences of epistemic injustice and medical invalidation, and literature examining people's use of digital tools in acts of epistemic resistance. I contribute a theoretically informed, feminist interpretive analysis of menstruators' narratives of using MTAs in their practices of resistance, using Fricker's (2007) theory of epistemic injustice, and Whelan's (2007) theorisation of epistemic resistance against medical invalidation in menstrual disorders.

Methods

The participant insights in this article are a part of the wider accounts collected for my PhD research into the use and experience of menstrual tracking apps in Aotearoa, approved by the Human Research Ethics Committee (Health) of the University of Waikato under HREC(Health)2023#58. Participants contributed their perspectives on a range of topics by way of a solicited digital diary, followed by semi-structured interviews. I implemented these data collection methods via an open-ended, participant-guided approach. In this article, I focus on the testimonies of a subset of ten app users (of 13 total app-user participants) who related frustrating or otherwise invalidating medical experiences. I conduct a theoretically informed,

feminist interpretive analysis of their accounts, using Fricker's (2007) theory of epistemic injustice, and Whelan's (2007) work on epistemic resistance.

Participants were recruited from across Aotearoa via physical posters on the University of Waikato campus, and in libraries, fitness centres and on community notice boards in the Waikato and Tasman regions, as well as electronic posters on social media and academic mailing lists. Participants were Aotearoa-based MTA users—a participation requirement which was stated on recruitment posters and in the participant information sheet. The subset of ten participants whose stories form the basis of this article ranged in age from early 20s to late 40. Two participants identified as both Māori and Pākehā, one each identified as European or Latin American, and the remainder identified as Pākehā/New Zealand European. One participant identified as gender queer, and just under half the participants identified with a queer or takatāpui sexual identity. In general, the participants had high levels of formal education, and many were associated with academia. The majority had a degree, with just under half having a postgraduate degree. More than half were current students or employed in the tertiary sector (some both concurrently; some alongside other occupations). In previous studies in Aotearoa (Hohmann-Marriott et al., 2023, 2024) the most commonly used MTAs were Flo and Clue; these MTAs also make up the majority of downloads worldwide (Rampazzo et al., 2024). Flo was used by several participants whose data contribute to this article. Other participants used a range of different apps, including Clue. Information about participants' primary purpose for using MTAs was not systematically collected. In research engagements, participants mentioned using MTAs for a range of reasons including tracking cycle regularity, predicting upcoming menstrual periods, getting to know their cycle and body, tracking cycle-related experiences (for example, menstrual pain), and tracking effects of birth control. One participant in this subset of ten was using an MTA to help conceive, two had previously used MTAs for conception, and one planned to use an MTA for conception in the future. One participant used an MTA to chart her progress towards menopause. None of the participants mentioned using an MTA for contraception.

The diary method took place over eight weeks of continued app use. During this time, participants were sent a weekly reminder in which they were prompted to write one or two paragraphs. The prompt instructed participants to think "about your tracking app, your body, your period, and the wider context (your relationships, life, and world)". Participants were given a list of possible topics and questions to consider, which included (among others) 'health' and 'wellness'. Participants were encouraged to write about what they thought was interesting and important about their digital-tracking practices, and were reminded that the topics and questions were given only as examples. They were given a range of ways to submit their response, and an optional Microsoft Form version of the prompt was supplied for ease of reply. Participants submitted between five and eight responses each, with a total length of all responses between two and four pages per participant. Their responses were rich and diverse.

Semi-structured interviews took place after completion of the diary method. A general interview schedule was personalised for each participant on the basis of their diary entries. As in the diaries, participants were encouraged to explore topics and issues of importance to them. To facilitate this, I told each participant that I had a "rough list" of questions and topics but was very happy to put it aside if they wanted to talk about something else. In practice, our conversations generally included both questions and prompts from me, and unprompted insights offered by participants. Where participants had written diary entries about feeling unheard in medical settings, or using MTAs to help with medical interactions, I asked them to expand upon their reflections in the interview. The interviews lasted between 24 and 56 minutes.

I took a theoretically informed, feminist interpretive approach to qualitative analysis for this article. I reflexively and inductively developed the topic of *medical gaslighting* during data collection, which became salient due to its importance to several participants, and centrality in their narratives. After data collection was complete, I read and re-read the interview transcripts and diary entries to familiarise myself with the data. To develop the medical gaslighting topic, I highlighted all the participant quotes about experiences,

concerns and practices related to this topic, without the use of a formal coding framework. The data were then organised into two broad subtopics: negative medical experiences, and participant responses to these. I separated the latter topic into two further subtopics: responses using apps, and other responses. Within the 'responses using apps' subtopic, I identified a small group of participant responses expressing frustrations or app limitations. These groupings formed the basis of the findings in this article. I used feminist theorising about epistemic injustice (Fricker, 2007) and epistemic resistance (Whelan, 2007) to interpret the participant narratives.

Findings

The participants in this research talked about disappointing, frustrating—even "traumatic"—medical experiences. For some, this was a small part of their overall stories, while for others it was centrally important. Here I relay participants' experiences of testimonial injustice and examine the ways in which they enacted epistemic resistance against this. I discuss their use of MTAs in practices of resistance, finally arguing that MTAs are ultimately limited and limiting as tools of resistance.

Medical invalidation as testimonial injustice

Several participants talked about their complaints of menstrual pain and heavy bleeding being minimised or reframed as 'normal' by doctors. Both Zara and Sierra have endometriosis,[3] a painful menstrual condition that often takes many years to be diagnosed (Ellis et al., 2022). They talked about intensely frustrating medical encounters that for each of them took place over, in Sierra's words, "years and years and years" of doubt and dismissal. Zara wrote that she had fought "for someone to take me seriously" for 15 years, saying: "No one knows my body better than I do, so I should be taken seriously when I say I can't walk due to pain or that my period is so heavy I can't leave the house." Zara's anger at the years of pain and invalidation was palpable. She recounted having had "doctors ignore me" when trying to communicate her "crippling pain" and bleeding; of being rebuffed when seeking help for bleeding through multiple period products in an hour. She said: "I've been told, 'Oh, you're a girl, this is your life for the next 40 years, get over it', like, 'this is all in your head', 'periods are supposed to be painful, you're supposed to bleed lots'." Sierra similarly discussed having her complaints of excessive pain rebuffed as normal menstrual embodiment, saying, "People don't tend to take it that seriously, like a lot of doctors I find, with anything related to periods." Aurora, who experienced prolonged bleeding and who had been "informally diagnosed" with endometriosis, described feeling untrusted by doctors, who sometimes dismissed her subjective reports. Willow, who at the time of the study had not yet been diagnosed with a specific menstrual disorder but had sought help for painful periods, said that in medical settings, "You say something, you're like, 'Oh, I've been feeling like this', and they're like, 'Oh, that's just normal'." Willow bristled at this assessment, arguing that "normal pain should be zero". The dismissals in these accounts resonate with the idea that menstrual pain is normal and to be expected (Przybylo & Fahs, 2018). Such attitudes can mean that sufferers' testimonies of intense, unwanted menstrual pain and excessive bleeding are reframed as unremarkable and unexceptional. In Whelan's (2007) study, the testimonies of endometriosis sufferers were similarly dismissed by doctors as exaggerated accounts of normal menstrual experiences by anxious and hypochondriacal women.

Beyond pain, participants described a range of menstrual and reproductive issues that they said were invalidated, minimised or ignored. Vida is undergoing treatment for infertility and said that she felt dismissed when she first raised the issue in a medical setting. She said, "The doctors weren't that interested and that concerned when I started talking about this with them. They were a little bit dismissive." Lucy

[3] All the participant names are pseudonyms.

talked about experiences of menstrual complaints that were investigated but remained frustratingly unresolved. She recounted a time when an ultrasound that showed ovarian cysts was never satisfactorily explained to her, saying, "I didn't really get a clear answer as to whether it was PCOS or not, and the doctor didn't really seem to know." Another time, Lucy consulted a doctor for what she suspected to be an anovulatory cycle. Lucy's practices of fertility awareness had led her to this understanding—an insight that she described as "empowering". She was disappointed, however, that this understanding was "not really validated" by her GP. In these experiences, Lucy felt her concerns and insights were brushed aside. For Emilia, medical encounters felt fractured and fracturing. She felt that rather than approaching her perimenopausal embodiments as a cohesive whole, her experiences were treated as though she were composed of disconnected parts. She said, "I feel like you go to the doctor, you have 15 minutes, you can explain one thing, and then you're out the door again." Emilia said that menopause often "doesn't seem to be considered" as an explanation, with each symptom instead treated in isolation. In each of these cases, participants felt that their complaints, embodied understandings, or desires for treatment were not taken seriously by doctors.

Some participants who experienced unwanted effects of hormonal medication said that their complaints of these effects were treated in a similarly dismissive way. Isabelle experienced intolerable effects of her contraception, which she said her doctor minimised. These included hair loss, a "complete loss of libido", and "the most messed-up cycles" characterised by long durations without bleeding punctuated by "bleeding so bad that I thought I was gonna die". But she said that when she sought help for some of these effects, she was told: "Oh, that's normal; it should settle down in a little while." Isabelle said, "I feel like you kind of get a little bit gaslit by doctors like, no, it's not a problem". Victoria said she was "annoyed" at the lack of discussion she had with her GP about hormonal birth control, saying that she felt that she wasn't fully informed about potential effects on her body: "There wasn't really any conversation … [and] no real education around it." She wondered whether her use of hormonal contraception had contributed to her later fertility issues. Avery said that their GP wasn't receptive to their observations about the bodily effects of their contraception, and wasn't supportive of their decision to discontinue hormonal birth control. Avery said that these experiences left them feeling "a bit gaslit by the medical system". Again, these participants felt that their concerns were not taken seriously by doctors who minimised and dismissed them.

These accounts echo those of countless other women and menstruators who report that their complaints are similarly doubted, disregarded or reframed as normal in medical encounters (Jayadeva & Lupton, 2025; Patsavas, 2014; Przybylo & Fahs, 2018; Whelan, 2007). The experiences of participants in this study can be understood as examples of testimonial injustice (Fricker, 2007), in which menstruators' bodily knowledge is devalued. In such cases, misogynistic suspicions about the reliability of menstruators' testimonies is bound up with cultural ideas about women's emotionality and their tendency to exaggerate or pathologise normal and unremarkable pain and bodily experiences (Cleghorn, 2022; Jaggar, 1989; Jules, 2023). The participants sometimes made this connection with regard to their own or others' experiences. Emilia said people experiencing perimenopause or menopause are often "misdiagnosed or … [just] given antidepressants" because, Emilia said, "[doctors] just diagnose us as having depression" rather than connect their patients' complaints to menopause. Vida said that in her online fertility support group, women from around the world had similar experiences to hers. She said: "It must be a universal experience just from being a woman." Likewise, Avery explained their doctor's dismissal of their concerns by saying, "The medical system doesn't really like, prioritise [or] trust in people with uteruses' experiences of their bodies."

The injustice of having their embodiments minimised, rebuffed or explained away was often intensely frustrating for participants. Dismissal and invalidation can be isolating, where medical disbelief leaves menstrual experiences unacknowledged, stopped up in the sufferer's body. Ahmed (2014) argues that pain is a feeling that turns the body in on itself and away from the world. She says that "pain is not simply the feeling that corresponds to bodily damage" (p. 27), but is entangled with recognition, attribution and

meaning. When the existence of pain is denied or doubted, it is intensified, further isolating its bearer. Such experiences could also make participants doubt their own testimony. Avery said of their experience of medical dismissal: "It kind of gaslights you into thinking that whatever you feel is not true, even if it is what you feel." This is a particularly egregious form of epistemic injustice in which doctors' scepticism and epistemic privilege causes patients to question *their own* bodily experiences and sensations.

Asserting epistemic resistance using MTAs and other resources

Participants responded to their experiences of medical invalidation by engaging in a range of acts of epistemic resistance. Some participants talked about carefully managing their affective presentation and the communication of their testimony in ways that they thought would best help them be heard, understood and believed. Sierra, Willow and Vida all said that effectively advocating for themselves in medical settings could be difficult. They each talked about the delicate balance of having to push, or in Vida's words "get angry", and to do so enough—but not too much. Vida noted: "You also don't want to get too angry because you don't want to be dismissed." These participants consciously modulated their emotion, aware that women's emotionality makes their testimony subject to dismissal (Ahmed, 2014; Jaggar, 1989; Tseris, 2019). In their interviews, Lucy and Avery were both quick to stress to me that they didn't claim medical expertise, perhaps distancing themselves from the patient who claims 'too much' knowledge (Maslen & Lupton, 2020). The participants engaged in practices of presentation management in order to advocate for themselves in a way that they thought could best get them the care they needed.

Several participants used MTAs as tools of knowledge creation and communication in medical encounters. Sierra and Isabelle both engaged in digital, community-based co-construction of experiential knowledge using the community forums in their apps. In these forums, app users posed questions and shared information, comparing experiences and offering each other support. Isabelle used her app's forum during her pregnancy to help "get a little bit of an idea" if a particular embodiment "was something that was normal or something you should be concerned about", which she said she found "empowering". For Sierra, the forum in her MTA was key to obtaining her endometriosis diagnosis. She said that "there were lots of other women having [the] same issues" as she was in the app forum, and "lots of people giving other people advice". Information on the forum led Sierra to suspect her then unexplained pain was caused by endometriosis. She gathered up this information and brought it to her doctor who, Sierra recalls, "[was] like, 'Oh yeah, that makes sense'." As in Whelan's (2007) study of endometriosis support groups, the sharing of lived experience allowed these participants to "draw upon the experiential accounts of others to make sense of their own experiences" (p. 960). Practices of collective knowledge building were not limited to digital spaces. Zara said her sister, mum and auntie were, like her, "bedridden" with pain on the first day of their periods, drawing strength from their common experiences. Sierra said that a friend who had been diagnosed with endometriosis years earlier had been helping her with "what she knows from her experience". She said, "I couldn't imagine being on my own and dealing with it. It would be horrible." As in Whelan's (2007) study, collective informational support helped these participants to cultivate their epistemic resources, while social and emotional support helped them to cope with their chronic menstrual disorders.

For some participants, using an MTA allowed them to build up a database of evidence that helped them resist experiences of testimonial injustice. Zara said that using an MTA to record the details of her pain and bleeding meant that she was able to back up her account "with two years' worth of data from the app". She said:

> It does help when you can back up what you're saying with the use of an app, it makes them take a second look and go: "Okay, well, maybe she's not over exaggerating this" … it makes you feel a little bit more heard.

Willow similarly said that having a digital record of her embodiments helped to communicate her experiences: "Being able to have something like that and be like, I've tracked this for *x* amount of months, and look what is happening." She said having this data gave her "more confidence going into an appointment, to be able to better advocate for myself'. Sierra noted that: "It's really important to track, like, your pain symptoms throughout the cycle and just have a record of that every month." By doing so, Sierra said, "When you do see doctors, you have the evidence to say, like, 'Yeah, this is the kind of pain I'm feeling. This is when I feel it. This is when it's the worst. This is when it's absent'." For Zara, Willow and Sierra, tracked data acted as credible evidence that validated and corroborated their testimony, helping them to feel heard, to engender confidence, and importantly, to have their menstrual complaints recognised and addressed in medical settings.

For Avery, who talked about how their doctor's dismissal had made them doubt their own bodily experiences, practices of digital tracking helped them to believe *in themself*. Avery said that they started tracking their cycle because "I wanted to have data to back up the vibes I was feeling about hormonal birth control and the impacts it was having on my body." Having a record of tracked experiences helped Avery develop "an increased understanding … of the kinds of impacts [hormonal birth control] was having on my body", and ultimately led Avery to choose a non-hormonal method of contraception, which they were much happier with. Avery said that having the "data to back up" their understandings of their body meant that "I am less likely to gaslight myself about my body and what I experience". Vida similarly said: "It's been really helpful to have something to actually go back to and say, 'Oh, yeah, of course, I'm feeling this because of this. And I'm not going crazy … I'm not imagining it. It's actually happening'." In addition to helping menstruators advocate for themselves in healthcare settings, digital acts of epistemic resistance can help counter the way in which medical doubt and dismissal affects menstruators' own bodily understandings.

In each of these cases of resistance, participants re-established their epistemic authority as knowers of their own bodies, thereby remedying some of the damage done in their experiences of testimonial injustice. The participants were creative and resourceful, using a range of tools and strategies, and resources. These included managing their affective presentation, building collective experiential knowledge, leaning on social support, and utilising MTAs as tools of communication and evidence collection.

The limits of algorithmic resistance

The use of user-tracked data in medical encounters highlights issues around the credibility of patient testimony, who is a trustworthy narrator of their body, what counts as evidence, and the work that different modes of communication do. Willow and Aurora reflected on the irony of MTA data being perceived as more credible than their testimony, given that the data were built from self-reported attestations of their own embodiments. Willow said:

> Yeah, it is funny, actually, like looking at the graph and being like, "Yes, see, look!" … It somehow becomes more real or something than me just saying those things, [like] "I've felt this for this amount of time." But then it's like, "Look at this graph." I'm like, "Hmm, yeah, it's really legitimate."

Willow's use of humour reveals her emotional resilience, as well as the absurdity of the situation in which a digital representation of her testimony is taken more seriously than that testimony itself.

Aurora found it frustrating to have to use an app to be heard by GPs. She said: "It feels like they, yeah, just can't trust me for my word … it just feels like a trust thing. Which doesn't make sense to me, 'cause I've put [the data] in myself." She elaborated:

> It does sort of seem like they need that physical proof. Like they can't just go off me saying like, "Oh, [my period] was a couple of weeks long, a couple of weeks ago." Like they have to see it … I think there was a time when I was going to the doctors where I just filled [the app] in beforehand, like I was, really ... in case they asked. Yeah, they like to see it, or for you to look as though, like not necessarily that they'll even look at it, but I feel like there might be this thing where they like to see me pull up my phone and check, and that it's like, evidence.

For Aurora, the act of pulling out and checking her phone gave her account the credibility that her words alone lacked, making her feel untrusted and her words unvalued.

Aurora's and Willow's reflections demonstrate the way in which the use of MTAs to support one's testimony can paradoxically undermine that same testimony. MTAs promote themselves as evidentiary tools to use in healthcare appointments (Pichon et al., 2022). They present users' logged bodily observations in visual formats that evoke data-driven science and 'objective' evidence (Kressbach, 2021). Menstruators in this study thus leveraged MTAs to reassert their epistemic authority in situations of medical testimonial injustice. But at the same time as MTAs support their user's testimony, they assert themselves as more authoritative than the subjective reports of their users, where MTA data is positioned as more objective than user introspection and testimony alone (Polzer et al., 2022). In these ways, MTAs reproduce the same devaluing of menstruators' testimony that they help resist.

In our interview, Lucy wondered about possibilities for collective organisation to affirm and validate embodied experiential menstrual knowledge, saying "'cause it is quite political, a lot of this knowledge". In addition to offering themselves as tools of support and evidence in medical encounters, MTA marketing leverages desires for menstrual collectivity by suggesting that individual acts of digital tracking can coalesce into a powerful force for the benefit of all menstruators—now and into the future. A Clue Instagram post reads:

> When you track with Clue, you're not alone. And when we track together, our collective data becomes something powerful. Data that can help illuminate the blind spots and help answer the unanswered questions about female health. To make sure that future generations get answers, and validation. A diagnosis. Not another dismissal. Because it's not in our heads. It's in our data. (Clue [@clueapp], 2024)

In this post, Clue nods towards menstruators' experiences of testimonial injustice ("not another dismissal") and offers belief and validation, while positioning itself as a force for collective power and the transformation of a misogynistic healthcare system. But at the same time Clue reproduces the very same testimonial injustice that menstruators face in that healthcare system by taking their complaints out of their "heads" (and bodies) and placing them into—the purportedly more credible—"data".

Clue's promises of collectivity are equally as shallow. Rather than provide genuine opportunities for collective action, Clue promises that a user's *individual* self-tracked data, gathered and aggregated *by the app*, will somehow enact this vaguely defined, promissory notion of "better female health" (the realisation of which is deferred until "future generations" arrive). As Roberts et al. (2019) argue, there are no

opportunities for collective meaning-making when the app simply gathers up user data and acts on their behalf. What is also elided in app marketing narratives are the commercial imperatives inherent to the tracking and monitoring of menstrual data in MTAs. MTAs like Clue are not purely altruistic tools supporting menstruators' acts of resistance, but ultimately exist to generate profit for their owners (Healy, 2021; Pichon et al., 2022). At the same time as they market themselves as tools with which to individually navigate and collectively solve the problems of "female health", MTAs profit from these very same problems. Were marketing promises to be fulfilled and these problems to be solved, MTAs would lose a valuable marketing angle.

For one participant in this study, neither testimony nor tracked data was enough to render their complaints credible in medical encounters. Though Avery's data helped them to make decisions about birth control, they said that their GP wasn't really "open to receiving my data", ultimately leading Avery to seek reproductive health care elsewhere. Though MTAs are helpful tools of evidence collection and communication for many users, they do not address the root causes of menstruators' experiences of injustice and dismissal. Avery's experience is a reminder that, though often individually useful in navigating medical encounters, MTAs are not a panacea for the ills of a healthcare system that treats menstruators' concerns with suspicion.

Conclusion

The participants in this study, like so many others, experienced testimonial injustice in medical encounters when their menstrual and reproductive concerns were minimised, rebuffed and invalidated. These experiences occurred within a misogynistic healthcare system that too often positions menstruators as overly emotional, frequently irrational, and prone to exaggeration. Medical invalidation is a well known problem—so much so that it is used as a marketing tool for MTAs. This study shows that menstruators are still being treated dismissively in healthcare settings, even in the context of growing awareness of this problem. It does not, however, reveal *why* this is the case. Future research would usefully investigate why medical invalidation is still occurring, and more importantly, what may be done to remedy this. One potential avenue for redress that Lucy, a participant in this study, advocated, is collective political organisation to recognise and affirm the validity of menstruators' experiential knowledge.

Participants in this study engaged in a range of acts of epistemic resistance against these injustices: by managing their communication and affective presentation, building collective experiential knowledge, leaning on social support, and utilising MTAs as tools of communication and evidentiary support. Participants' use of MTAs demonstrates their creativity and resourcefulness in navigating an often dismissive healthcare system—as well as MTAs' success in promoting themselves as tools with which to do so. MTAs are not, however, uncomplicated tools of empowerment. MTAs ultimately exist to generate profit for their owners, who, by marketing MTAs as sympathetic allies in the navigation of difficult medical encounters, capitalise on and profit from user experiences of medical invalidation. Though MTAs may be individually useful in acts of epistemic resistance, they also reproduce the very same forms of epistemic injustice that they are enrolled to address.

Participants talked about how useful MTAs were in their medical encounters: to help doctors to see, hear and understand their concerns, and to help get diagnoses and access medical treatment. It is not my intention to minimise or dismiss the usefulness of MTAs to these menstruators, and the relief that diagnosis and treatment can bring. Rather, I hope to contextualise their successes as individual fixes that occurred in the context of repeated experiences of dismissal and invalidation, which sometimes took place over "years and years and years". MTAs are tools used to help negotiate a health system that remains poorly equipped to respond to menstrual complaints like chronic menstrual pain. The structures of medicine must

do more to recognise, acknowledge, address and prevent the experiences that necessitate such use. Resistance, in these accounts, is always entangled with injustice.

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